

Recommendations Regarding the Labor Force Participation Projections

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Structure of the Current Model

- 153 separate equations for age and sex groups, differentiated in some cases by marital status and presence of children < 6
- Factors incorporated in the model
 - Current economic conditions (unemployment rate)
 - Disability prevalence rate
 - Educational attainment
 - Marital status
 - Number or presence of children
 - Social Security replacement rate
 - For older men: older women's labor force participation
 - For women to 1948 cohort: linear cohort effects; for those 75+: lagged cohorts effects
 - Life expectancy “add factor” (rather ad hoc)

What the current model accomplishes?

Age-Sex Group	2023 4th Qtr.	Decomposition of Cumulative OCACT Model Change from 2023 4th Qtr. to 2088 4th Qtr.												2088 4th Qtr.
	OCACT Model	Regression Factors										Life Expect.	Total	OCACT Model
		Components									SubTotal			
		Econ. Cycle	Disab. Prev.	Educ.	Rep. Rate	Earn. Test	Female LFPR	1948 Cohort	Lagged Cohort (75+)	Time Trend				
		(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)				
16+	0.639	0.000	-0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-0.002	0.011	0.009	0.669
M16+	0.722	0.000	-0.002	-0.001	0.000	0.000	0.000	—	0.000	0.000	-0.003	0.011	0.009	0.730
M1617	0.238	0.000	0.000	—	—	—	—	—	—	0.000	0.000	—	0.000	0.238
M1819	0.528	0.000	0.000	—	—	—	—	—	—	0.000	0.000	—	0.000	0.528
M2024	0.776	0.000	0.000	—	—	—	—	—	—	0.000	0.000	—	0.000	0.776
M2529	0.898	0.000	-0.001	—	—	—	—	—	—	0.000	-0.001	—	-0.001	0.897
M3034	0.923	0.000	0.000	—	—	—	—	—	—	0.000	0.000	—	0.000	0.923
M3539	0.923	0.000	0.000	—	—	—	—	—	—	—	0.000	—	0.000	0.923
M4044	0.911	0.000	-0.002	—	—	—	—	—	—	—	-0.002	0.002	0.000	0.911
M4549	0.889	0.000	-0.005	—	—	—	—	—	—	—	-0.005	0.004	-0.001	0.888
M5054	0.847	0.000	-0.003	—	—	—	—	—	—	—	-0.003	0.005	0.002	0.849
M5559	0.771	0.000	-0.005	-0.005	—	—	—	—	—	—	-0.010	0.009	-0.001	0.770
M6064	0.603	0.000	-0.005	0.000	0.000	0.000	0.000	—	—	—	-0.005	0.038	0.033	0.636
M6569	0.408	0.000	-0.002	-0.001	0.000	-0.001	0.001	—	—	—	-0.003	0.073	0.071	0.478
M70+	0.196	0.000	-0.001	-0.003	—	—	0.001	—	-0.002	—	-0.002	0.033	0.032	0.223



Go to the handout if you really want to see this.

Recommendation 1: The Panel recommends that, in developing the labor force projections, the Trustees **allow for likely future increases in the educational attainment of the population.** One way, but not the only way, to do this would be to assume that U.S. educational attainment will converge over time to the level of education observed in a country such as Korea, Japan or Canada that currently exhibits substantially higher educational attainment than the United States (see OECD *Education at a Glance* 2014).

Rationale for Recommendation 1

- Current model assumes no future increase in completed educational attainment beyond the level achieved by today's 35 year olds
- There are reasons to expect educational attainment to continue to rise
 - Continuing high returns to education
 - Policy emphasis on raising educational attainment
- Data show higher school enrollment among youngest cohorts than among earlier groups

Recommendation 2: The Panel recommends that the Trustees explore **possible methods for incorporating labor demand factors into the projections.** The experiences of countries that have experienced large changes in the relative sizes of different age cohorts could inform this exploration.

Rationale for Recommendation 2

- Shifts in labor demand can have significant effects on the labor force participation rate
- Many questions about the future
 - Will globalization and technological change continue to reduce the demand for less-skilled workers or will those trends weaken or even reverse?
 - How will the changing age structure of the population change the attractiveness of the wages and working conditions offered by employers?
- Do not have answers, but believe this is a topic that merits study

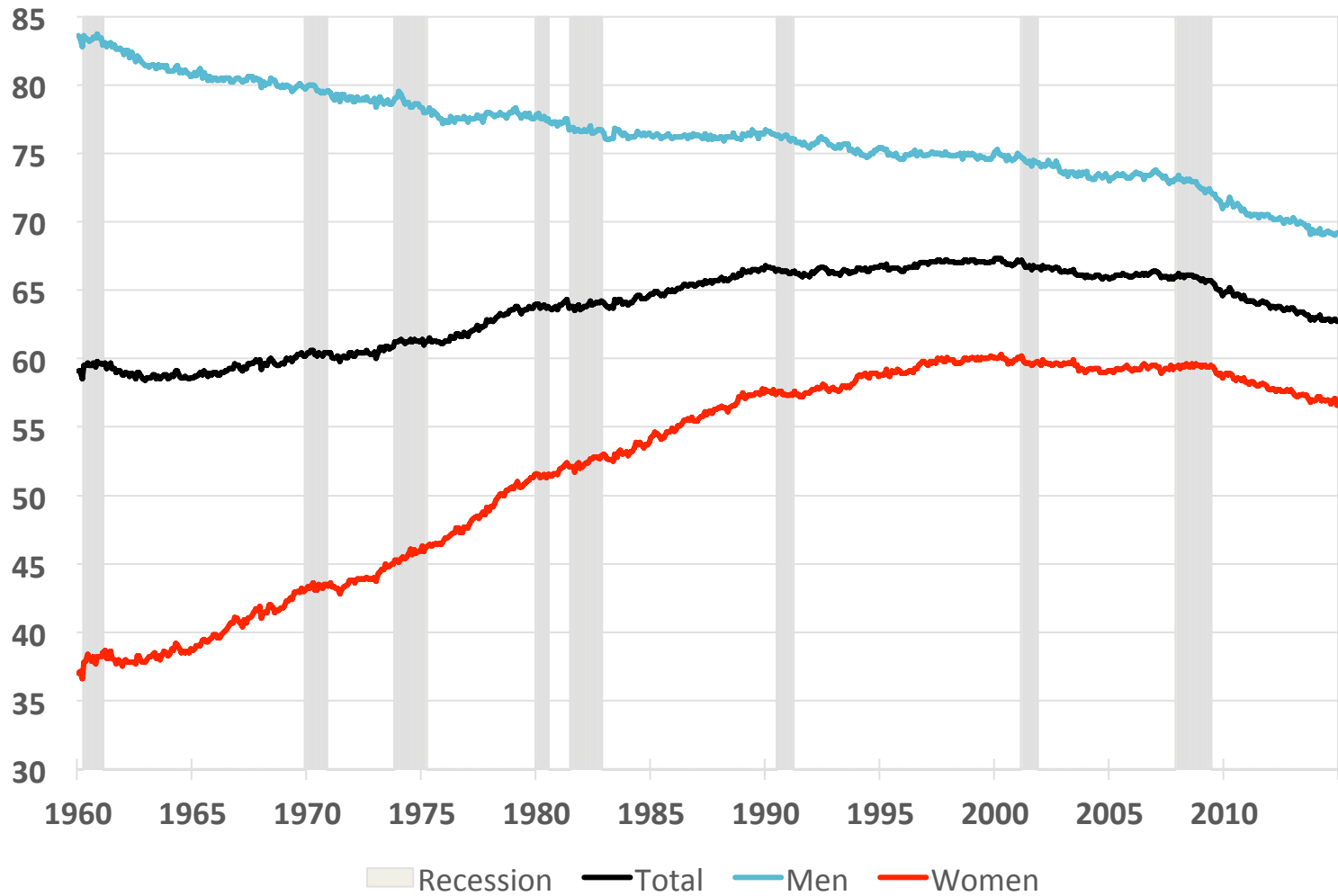
Recommendation 3: The Panel recommends that **alternative assumptions about educational attainment and**, perhaps more ambitiously, **labor demand** that could produce more meaningful variation in labor force participation projections be considered for incorporation in the high-cost and low-cost scenarios.

Rationale for Recommendation 3

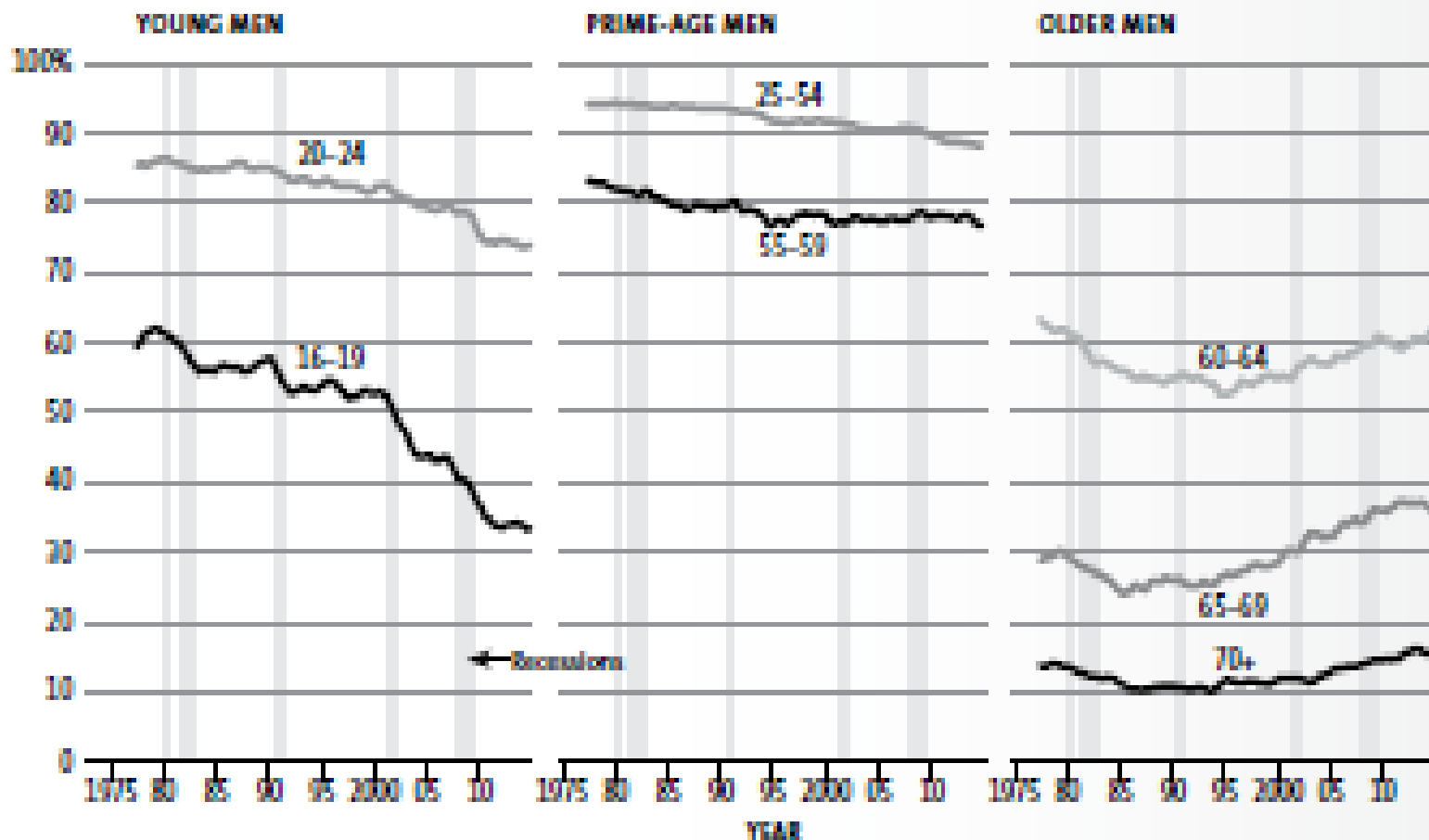
- Current high cost and low cost scenarios allow labor force participation to vary only to the extent there are differences in the values of drivers in the labor force participation model
- These variables have offsetting effects, so the net effect on the labor force is very small
 - Example: High cost scenario includes both increased longevity and increased disability prevalence
- Key potential shifters of labor force participation are not incorporated

Recommendation 4: The Panel recommends that information be included in the Trustees' Report that would allow the reader **to assess the sensitivity of the projected trust fund balances to variations in realized labor force participation rates.** One possible way—but not the only possible way—to do this would be to consider labor force participation rates that are 10 percent higher or 10 percent lower than those incorporated in the intermediate projection. These increases could be assumed to apply to the entire population or only to individuals in a certain age range.

Fig. 1: Labor Force Participation Rates, Total, Male, Female, 1960-2014



MALE LABOR-FORCE PARTICIPATION RATES, 1977-2014



FEMALE LABOR-FORCE PARTICIPATION RATES, 1977-2014

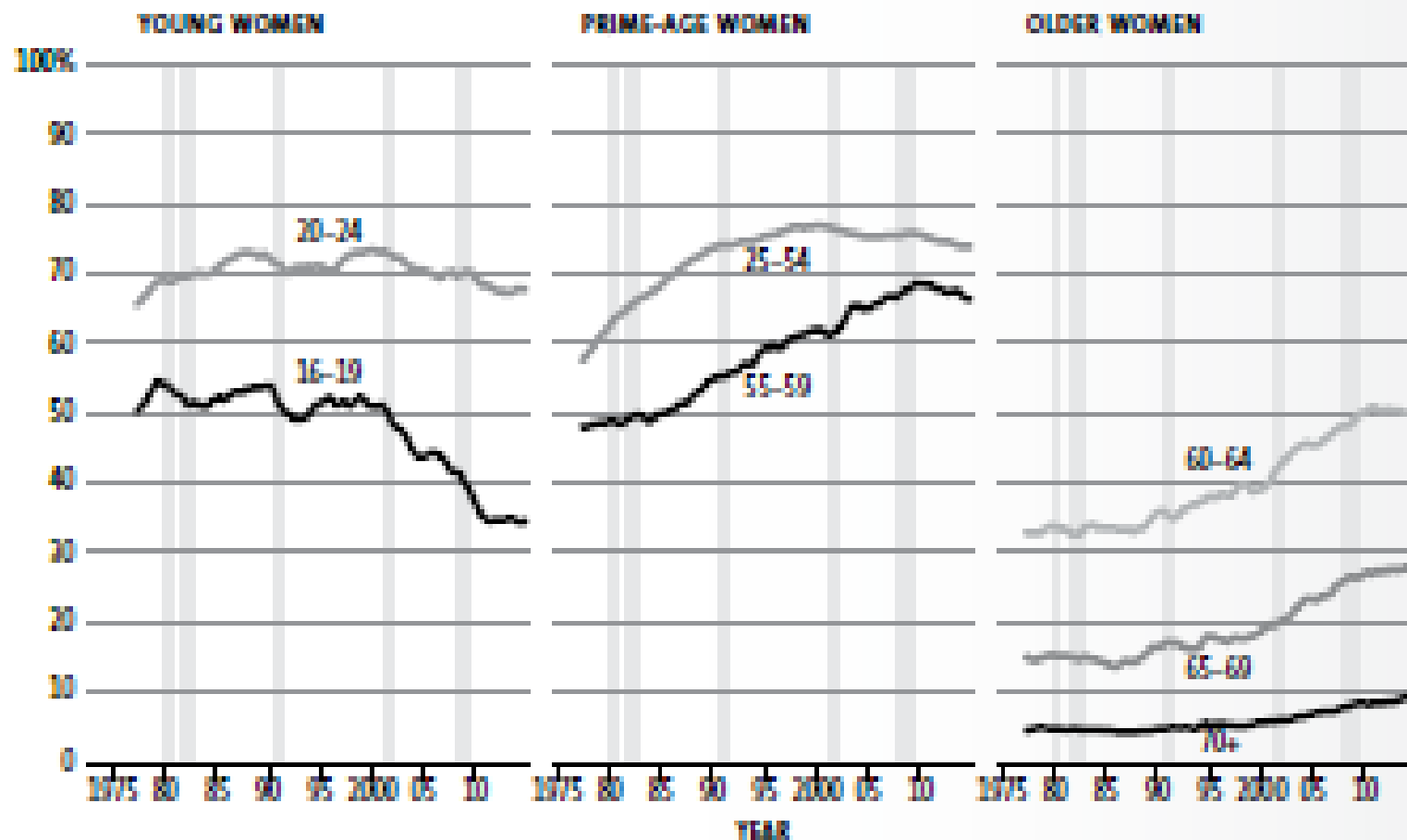
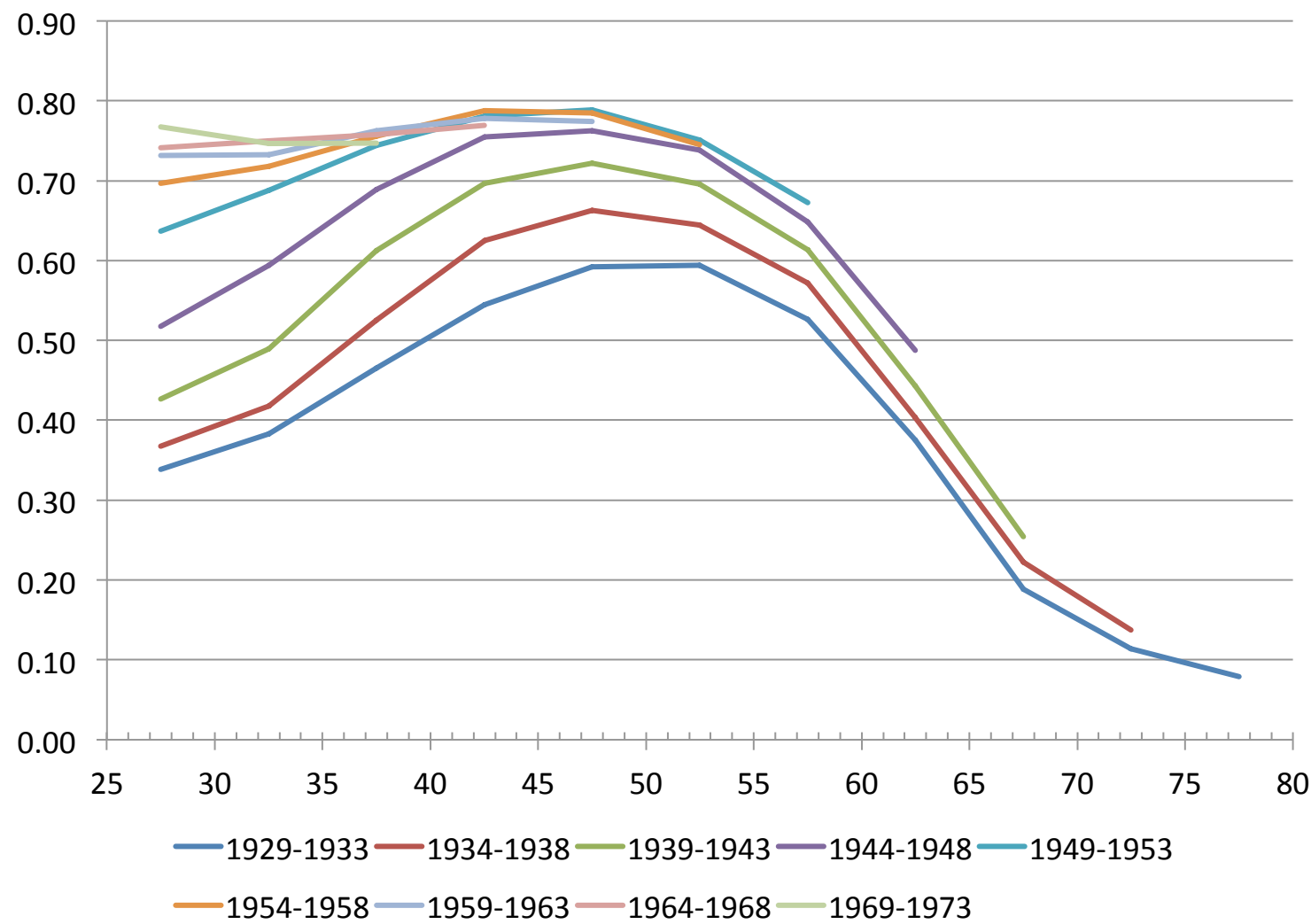
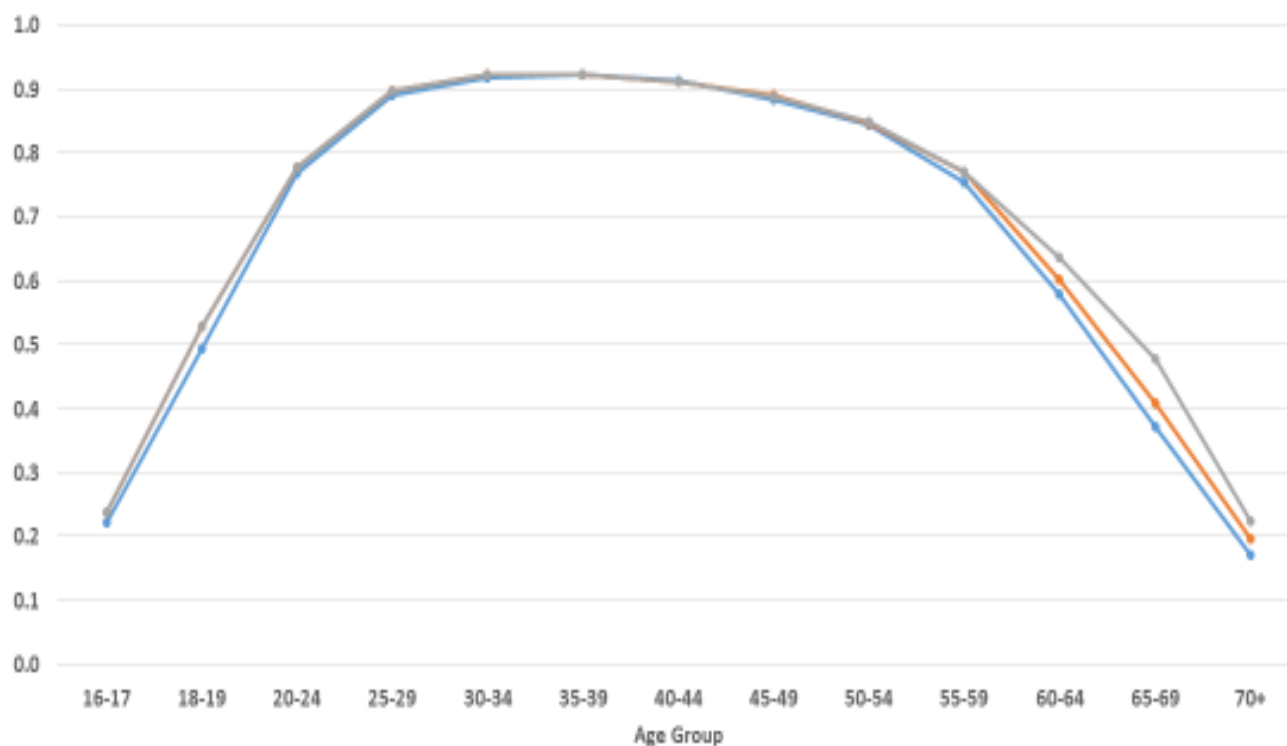


Fig. 3: Female Labor Force Participation by 5-Year Age Groups and Birth Cohorts



Projected male labor force participation rates, by age, 2013, 2023 and 2088



Source: OCACT September 29, 2013

— 2013 — 2023 — 2088

Projected female labor force participation rates, by age, 2013, 2023 and 2088



Source: OCACT September 29, 2014